

Appl. No. 09/812,210
Amdt. Dated October 25, 2004
Reply to Office action of July 30, 2004
Attorney Docket No. P12560-US1
EUS/J/P/04-3258

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Currently Amended) The local site communication system of claim 11 [[1]], further comprising a voice client converting data between wireless signals on said wireless local site network and internet protocol signals on said broadband connection.
3. (Currently Amended) The local site communication system of claim 2, wherein said voice client adds internet protocol overhead to data received from said mobile terminal and to be sent from said wireless local site network to said cyber base station, and removes internet protocol overhead from data received from said cyber base station.
4. (Original) The local site communication system of claim 2, wherein said data communicated by said cyber base station includes a neighbor cell list for said local site communication system.
5. (Currently Amended) The local site communication system of claim 11 [[1]], wherein said cyber base station communicates information on a control channel, and said control channel information includes internet protocol addresses.
6. (Currently Amended) The local site communication system of claim 11 [[1]], wherein said cyber base station mimics a radio base station to said mobile switching center.

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7. (Currently Amended) The local site communication system of claim 11 [[1]], wherein said wireless local site network is a Bluetooth and said local site communication system communicates with a mobile terminal having cellular and Bluetooth communication interfaces.

8. (Currently Amended) The local site communication system of claim 11 [[1]], wherein said local site communication system provides wireless communication with mobile terminals in a plurality of local sites each having a broadband connection to the internet, and

a wireless local site network communicating data between said broadband connection and a selected mobile terminal when said selected mobile terminal is located at said local site; and

said cyber base station communicates data between said broadband connections and said mobile switching center.

9. (Original) The local site communication system of claim 8, wherein said cyber base station mimics a radio base station to said mobile switching center.

10. (Original) The local site communication system of claim 8, wherein said broadband connections are cables.

11. (Currently Amended) ~~The local site communication system of claim 4~~
A local site communication system providing wireless communication with a mobile terminal in a local site and cooperating with a public communication system including a public service telephone network and a cellular communication network having a plurality of radio base stations covering a plurality of cells where switching of mobile terminal communication links with said public communication system is controlled by a mobile switching center, said local site communication system comprising:

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a broadband connection between said local site and an Internet wherein said local site is located in one of said plurality of cells covered by one of said plurality of radio base stations;

a wireless local site network in said local site for communicating data between said broadband connection and said mobile terminal when said mobile terminal is located in said local site; and

a cyber base station connected to the internet and communicating data between said broadband connection and said mobile switching center whereby said mobile terminal when located at said local site connects to said public communication system via said wireless local site network, said broadband connection, the internet and said cyber base station, and wherein switching of said mobile terminal communication links of said cyber base station with said public communication system is controlled by said mobile switching center controlling switching of said mobile terminal communication links of said one of said plurality of radio base stations radio base station with said public communication system.

12. (Currently Amended) A wireless communication system, comprising:
a plurality of cells each served by a radio base station via wireless signals;
a plurality of low power wireless local site networks located in said cells, said wireless local site networks served by a cyber base station via an internet and including a low power transceiver for communicating with mobile terminals;
a mobile switching center controlling said cyber base station and said radio base stations, wherein

switching of mobile terminal communication links, of said cyber base station with a public communication system is accomplished by said mobile switching center controlling switching of said mobile terminal communication links of said radio base station with said public communication system.

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13. (Original) The wireless communication system of claim 12, wherein said cyber base station communicates information on a control channel, and said control channel information includes internet protocol addresses.

14. (Original) The wireless communication system of claim 12, further comprising a voice client at each of said wireless local site networks, said voice clients converting data between wireless signals on said wireless local site network and internet protocol signals on the internet.

15. (Currently Amended) The wireless ~~local-site~~ communication system of claim 14, wherein said voice client at each of said wireless local site networks adds internet protocol overhead to data received from said mobile terminal and to be sent from said wireless local site network to said cyber base station, and removes internet protocol overhead from data received from said cyber base station.

16. (Currently Amended) The wireless ~~local-site~~ communication system of claim 12, wherein said cyber base station mimics said radio base stations to said mobile switching center.

17. (Currently Amended) The wireless communication system of claim 12, wherein said cells each have having a list of neighboring cells, and said cyber base station is included in said list of neighboring cells for each of said cells within which said plurality of low power wireless local site networks is located.

18. (Original) The wireless communication system of claim 12, wherein each of said wireless local site network is a Bluetooth.

19. (Original) The wireless communication system of claim 12, further comprising broadband connections between said wireless local site networks and the internet.

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20. (Original) The wireless communication system of claim 19, wherein said broadband connections are cables.

21. (Original) The wireless communication system of claim 12, wherein said mobile switching center controls said cyber base station like a pico base station.

22-30. (Canceled)

31. (Currently Amended) A method of placing a call via a mobile switching center to a mobile terminal registered in a location area having a plurality of cells and a cybercell, comprising:

transmitting a page message from said mobile switching center to radio base stations in the location area and to a cyber base station serving said cybercell;

transmitting a wireless signal with said page message by said radio base stations;

transmitting an internet message with said page message by said cyber base station;

transmitting a low power wireless signal with said page message by a low power wireless local site network serving said cybercell;

responding from said mobile terminal to said the base station serving said the cell providing service to said the mobile terminal, where when said mobile terminal is being provided service by a wireless local site network serving a cybercell, said mobile terminal response is sent to said cyber base station as an internet protocol response message via said internet; and

establishing a voice path from said mobile terminal to said mobile switching center via said wireless local site network, the Internet and said cyber base station.

32. (Original) The method of claim 31, wherein said voice path carries data in Internet protocol packets between said cyber base station and said wireless local site network.

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33. (Original) The method of claim 32, wherein a voice client at said wireless local site network adds internet protocol overhead to data received from said mobile terminal and to be sent from said wireless local site network to said cyber base station, and removes internet protocol overhead from data received from said cyber base station.

34. (Original) A method of placing a call to a phone via a mobile switching center from a mobile terminal served by a cybercell, comprising:

transmitting a call origination message from said mobile terminal to a wireless local site network serving said cybercell;

transmitting an internet protocol message with said origination message from the wireless local site network over an internet to an internet protocol address at a cyber base station providing an interface to said mobile switching center;

paging the called phone; and

establishing a voice path from said mobile terminal to said mobile switching center via said wireless local site network, the internet and said cyber base station.

35. (Original) The method of claim 34, wherein said wireless local site network is connected to the internet by an always-on broadband connection, and said transmitting an internet protocol message with said origination message from the wireless local site network over the internet to an internet protocol address at a cyber base station comprises transmitting said internet protocol message on said always-on broadband connection.

36. (Original) The method of claim 34, wherein said voice path carries data in internet protocol packets between said cyber base station and said wireless local site network.

37. (Original) The method of claim 36, wherein a voice client at said wireless local site network adds internet protocol overhead to data received from said

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mobile terminal and to be sent from said wireless local site network to said cyber base station, and removes internet protocol overhead from data received from said cyber base station.